

Smart Grid Success Metrics

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Customers engaged in use of smart meter information to make usage decisions

- **Metric 1:** % premises capable of receiving information from their smart meter

Timeframe: Short term

Source of info: LDCs

- **Metric 2:** Number of communication-enabled, consumer-side meter devices sold

Timeframe: Mid term

Source of info: Stats Canada or Canadian Electro-Federation

Customers engaged in use of smart meter information to make usage decisions

- **Metric 3:** Number of customer-side meter devices sending/receiving grid related signals

Timeframe: Postponed

Source of info: Various

- **Metric 4:** % of customers opting to make decisions (directly or indirectly)

Timeframe: Short and mid term

Source of info: Initial – LDCs re TOU rates

Later – Various for other types of services

Customers engaged in use of smart meter information to make usage decisions

- **Metric 5:** Measurable energy savings by customers (e.g. per capita per region, by customer class)

Timeframe: Short term

Source of info: LDCs or OPA

- **Metric 6:** Evidence of load shifted (e.g. peak reduction)

Timeframe: Short term

Source of info: LDCs or OPA

Customers participating in the grid

- **Metric 1:** DSM program participation by number and total load

Timeframe: Short term

Source of info: LDCs and OPA

- **Metric 2:** Number of different ancillary services in which loads participate

Timeframe: Mid term

Source of info: IESO

Customers participating in the grid

- **Metric 3:** Number of participants in distributed renewable generation

Timeframe: Short term

Source of info: LDCs and OPA

Overall performance of the grid

- **Metric 1:** Outages by duration and numbers affected

Timeframe: Short term

Source of info: LDCs

- **Metric 2:** Carbon content of energy by distributed generation and other, high-voltage directly connected green energy

Timeframe: Short term

Source of info: IESO

Overall performance of the grid

- **Metric 3:** Improvement of load factor for both transmission and distribution systems

Timeframe: postponed

Source of info: LDCs and Hydro One

- **Metric 2:** VAR control and voltage regulations (per feeder VAR measurement)

Timeframe: postponed

Source of info: LDCs and Hydro One

Support for electrification

- **Metric 1:** Plug-in electric vehicle penetration

Timeframe: Short term

Source of info: Ministry of Transportation

- **Metric 2:** % of energized charging stations relative to the number of requests/applications

Timeframe: Short/mid term

Source of info: LDCs or ESA

Contribution of the broader electricity sector to the Ontario economy

- **Metric 1:** Exports of products and technology beyond Ontario

Timeframe: Long term

Source of info: Ministry of Economic Development and Trade

- **Metric 2:** Number of green jobs created

Timeframe: Short/mid term

Source of info: Ministry of Economic Development and Trade

Contribution of the broader electricity sector to the Ontario economy

- **Metric 3:** Aggregate quality of jobs created based on education level

Timeframe: Long term

Source of info: Ministry of Economic Development and Trade or Stats Canada

- **Metric 4:** Grants and incentives for smart grid technology and green job creation

Timeframe: Short term

Source of info: Provincial and federal governments